

Gender and forest, tree and agroforestry value chains - Evidence from literature

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Abstract

The critical link between gender and forest and tree-based livelihoods is gaining recognition. A growing body of research has highlighted the role of gender in shaping access to, management of and use of forest, agroforestry and tree (FTA) resources and markets and their associated benefits. Myriad development and trade interventions have affected how men and women participate and interact in value chains as products travel from trees and forests to consumers in local and global markets. There is an increasing realisation that interventions can be further optimized to alleviate poverty, ensure social inclusion and gender equity, enhance food security, nutrition and health, and promote the sustainable management of FTA resources. This section presents a systematic review of 126 studies with the aim of showing 1) the nature of gender differences in FTA value chains; 2) where these differences are concentrated within these value chains; 3) the factors that explain these differences; and 4) the extent to which these differences influence the value chain's prospects for generating gender-equitable and sustainable outcomes. Using examples of interventions from cocoa and shea chains, the impacts of interventions in these chains are assessed, particularly where they have resulted in gendered outcomes. Lessons for improving equity and the impacts of chain interventions include focusing on improving participation levels and the benefits derived by both women and men, and to take more account of their relations. Raising social awareness, the use of role models and pilots to stimulate social change, and implementing technological improvements need to be implemented concurrently, in parallel stages of the chain, to achieve structural improvements in gendered participation and benefits. Expectations by policy makers, practitioners and the research community of the long timescales required to effect real changes, for example in customs and tenure changes, need to be realistic.

Keywords: gender, value chain, forest, agroforestry, non-timber forest products, cocoa, shea,

Introduction, scope and main objectives: Men and women in forest, tree and agroforestry value chains

A forest, tree and agroforestry (FTA) value chain (also known as market, supply or commodity chain or production to consumption system) concerns the activities involved in bringing a timber or non-timber product from the tree or forest, through processing and production, to delivery to final consumers and ultimately disposal; including activities such as harvesting, cleaning, transport, design, processing, production, transformation, packaging, marketing, distribution and support services. Such activities generally add value to a product as it moves along the chain. A chain can range from the local to the global level. This range of activities may be implemented by various individuals or organisations, termed "actors", such as harvesters, processors, traders, retailers and service providers. The relations between actors and control of chains is known as chain governance (Gereffi and Humphrey 2005; Helmsing and Vellema 2011). Chains and products embody multiple relations of value – often explicitly economic but also social, cultural and environmental. Being based on natural

resources, often wild sourced, sustainability of harvesting is a core aspect that differentiates forest product from agricultural chains.

The critical link between gender and forest and tree-based livelihoods is gaining recognition. A growing body of research has highlighted the role of gender in shaping access to, management of and use of forest, agroforestry and tree resources and markets and their associated benefits (Mai et al. 2011). Gender refers to the socially constructed differences between women and men (Kabeer 2005) how society gives meaning to differences in femininity and masculinity, and the power relations and dynamics that characterize how women and men interact (Laven et al. 2009).

This paper examines the nature of gender differences in FTA value chains; where these differences are concentrated within value chains; the factors that explain these differences; and the prospects for generating gender-equitable and sustainable outcomes from participation in FTA value chains.

Methodology

A review of literature available on the internet dated from the year 2000 onwards resulted in 126 studies¹ which concerned FTA value chains and gender, following the steps shown in fig 1. The studies covered a wide variety of product chains, involving fruits, seeds, nuts, gums, resins, barks, stalks, leaves, timber, branches, fungi and roots sold for food, feed, medicinal and cosmetic uses, as scents, energy, tools and utensils. Many products also had subsistence uses. The majority (63%) were peer reviewed scientific articles, 8% were book chapters and 14% were working papers and reports. Other sources included theses, case studies and policy briefs. Most studies (65%) were descriptive in nature, 18% conceptual and 17% described external interventions in value chains. All concerned FTA chains originating in developing countries, with most (58%) based in Africa, 26% in Asia and 16% in Latin America. The publications were read and coded according to the types of gender differences, where these differences were located along the chain, the factors explaining differences, the types of interventions and their impacts. This evidence was then synthesized.

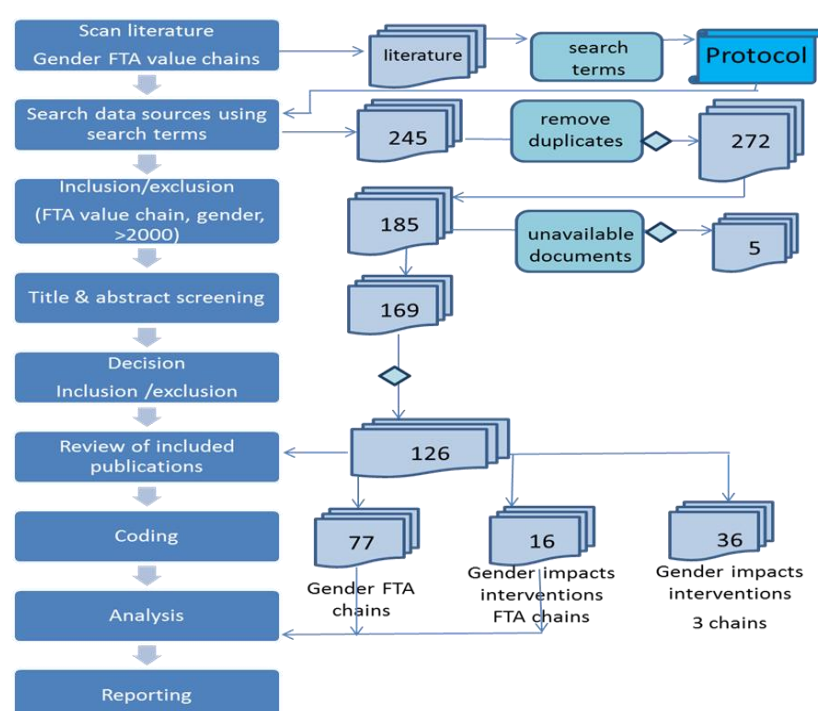


Fig. 1: Literature review methodology

¹ Full list of publications reviewed and review methodology can be obtained from authors.

Results

Where are gender differences in FTA value chains?

Most of the studies reviewed did not indicate the sex of those involved. In harvesting, 21 cases clearly identified the sex of the actors, with women dominating 43% of the cases, men 29% and both sexes in 23%. Also in processing, women dominated in 25% of the 8 cases, with men in 5%, and both participating in 5%. In trading, women dominated in 38% of the 13 cases, men in 19% and both sexes were active in 5%. It is notable that fewer studies concerned gendered participation in activities other than harvesting.

Trends in gendered benefits identified by Sunderland et al. (2014) were broadly replicated in other studies. Globally, FTA income from unprocessed products collected by men contributed equally to the total household income as that contributed by women. Women were the main collectors of FTA products only in Africa and men contributed a greater income share from unprocessed FTA products than women, especially in Latin America. In Asia, their contribution was equal. Shackleton et al. (2011) found that even though in many FTA value chains in South Africa both men and women are involved, either independently at different stages or together for certain activities, women are often subordinate to men or carry out activities with limited visibility. A general trend indicated in 13% of the literature is that men participate more in chains when the value of the products increases, and that men typically participate to commercialise products, whereas women participate both to gather goods for their own and family use, and to generate income. Non-monetary benefits from women's participation in FTA chains noted were: independence, self-esteem, physical wellbeing, improved self-identity, a sense of purpose, new and extended social networks, the perpetuation of traditions and reduction of vulnerabilities and risks associated with food and income security.

What contextual factors contribute to these gender differences?

The frequency with which specific factors were mentioned suggests that these factors explain the differences between men and women's participation in different stages of chains. That these factors were not consistently mentioned for all products and geographical regions, is attributed to the differing emphasis of the publications.

Socio-cultural factors such as cultural norms and customs, generally geographically and also ethnically specific, were the most frequently stated (51 times in 24% of the publications), resulting in acceptable social, economic and familial practices and taboos for men and women that determined their participation (where, how and what) in chains. Several studies stressed that gender is just one component of socio-cultural and demographic variables that socially differentiate men and women in value chains.

Economic factors were mentioned 12 times in 13% of the publications, specifically the effects of globalisation and reforms due to economic crisis, including government responses to it, such as structural adjustment plans; migration, urbanisation and resulting changing in social roles. These affected not just markets for FTA products (positively and negatively) but demand and consumption for FTA products more generally.

Governance, political and institutional factors were generally seen as complex and interlinked, with plural governance arrangements noted in many chains and countries. Institutional and governance factors were mentioned 16 times in 17% of the literature reviewed. They generally concerned overlapping customary and formal, regulatory arrangements. Societal norms can result in the underrepresentation of women in the institutions mediating formal governance: government, policy- and law making. However, in some customary, and market-based governance arrangements, women have developed strategies to increase their representation and participation in the institutions governing

chains. Political factors such as participation rights and political empowerment were mentioned 5 times in 5% of studies.

Environmental factors were cited five times in 4% of publications, referring to resource degradation (due to anthropogenic and/or natural causes) affecting the quality and quantity of FTA resources available. Women were shown in some cases to be more vulnerable than men to the effects of such degradation, because they are often poorer and more dependent on forest ecosystems threatened by degradation and climate change and because of their socially and politically driven lack of participation in decision making and power.

Why are there differences in male and female participation in FTA chains?

The literature reviewed indicated that there are four main types of differences between where, how and when men and women participate in FTA value chains:

Social and cultural differences influence how chains are governed. Governance institutions often comprise gender-differentiated access rights and responsibilities to land, tree species, the FTA products themselves, labour, technology, credit, information, and FTA product markets. Often women had fewer or less favourable access rights than men that were not well defined or enforced. Socio-cultural factors further strongly influence the work performed, the division of labour in chains and (other) household and economic responsibilities and activities of those participating in FTA value chains. A general pattern emerging from the literature was that women tend to be disadvantaged. The literature makes clear that participation in FTA chains can be just one part of often diverse livelihood strategies, or can form a major source of a man or woman's livelihood. This is emphasised by the differences apparent between geographical regions and cultures for chains concerning the same product, such as fuelwood and cocoa.

Different benefits were apparent in the revenues and profits gained by men and women in FTA chains and how they spend FTA related incomes. Generally, but not always, men sell a higher proportion of FTA products (both processed and unprocessed) than women and thus have higher FTA based incomes. Regional differences were apparent in how much men and women earn, particularly from processed products and if both sexes are engaged in activities. Poverty was also a factor, cutting across gender, influencing people's dependence and engagement in a chain. Benefits were often co-determined by socio-cultural customs, and socio-economic characteristics as the sex of the household head. Spending the benefits from FTA products is influenced by other sources of income of the person involved in FTA chains, the nature of household and the specialisation of individuals, households and businesses in specific chain activities. Many researchers have noted that increases in women's incomes have greater impacts on food, health and education expenditure and therefore on overall household well-being than increases in men's incomes.

Political differences arise due to gendered power relations, particularly within households but also within enterprises, determine participation in chain activities and their associated outcomes (especially incomes and profits). Women were often described as being disadvantaged compared to men, or subordinate to men. However strategies for women to increase power, such as collective action, were noted.

Differences due to the nature of the product and activity arise due to the physical demands of chain activities, notably harvesting and primary processing, and the time taken to conduct these activities, such as long forage distances or extended periods away from home. These were strong determinants of participation in the chains of certain products.

What kind of FTA value chain interventions have been made and how can interventions be more gender equitable and sustainable?

A third of the studies discussed interventions in FTA chains generally or gave details of the results of actions in specific chains. Most interventions, shown in fig 2, were made at community and harvester level.

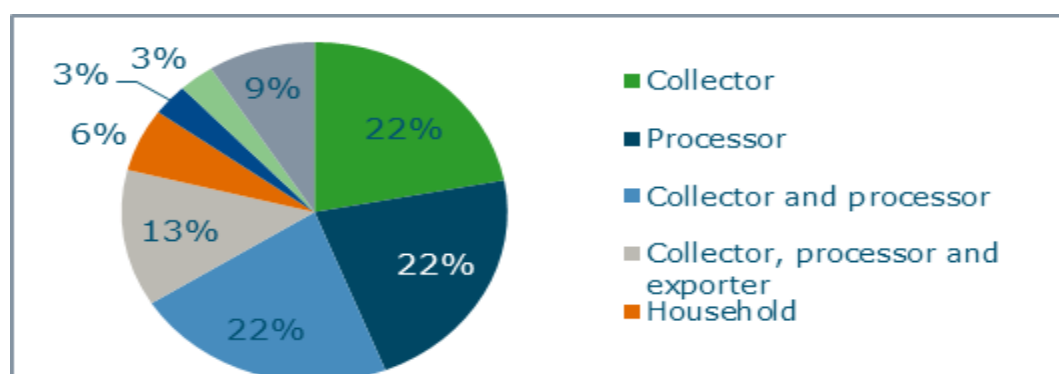


Fig. 2: Stage of interventions in FTA chains

The majority of studies detailing interventions indicated that gender was a specific aim, shown in Figure 3. Most studies (84%) were female focused, and sought to improve the position of women in the FTA chains. The remaining 19% addressed both men and women.

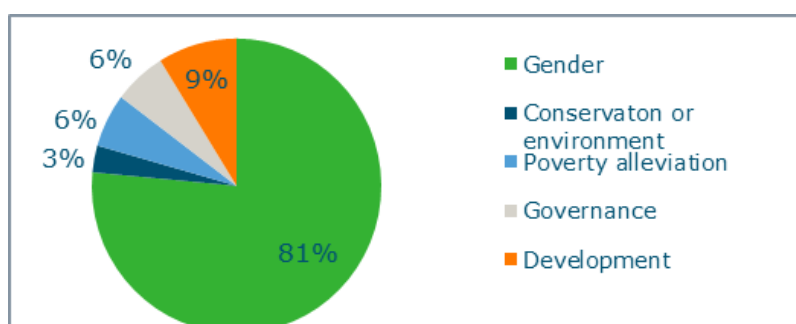


Fig. 3: Focus of FTA chain interventions

The most successful interventions in the literature were those attempting to combine horizontal and vertical upgrading. Horizontal upgrading, which was more common, was used in half of the interventions, as shown in Fig 4. Over a quarter of the interventions used both strategies, this suggests that outcomes are most effective when both interventions target both horizontal and vertical coordination in chains. Most (84%) interventions resulted in process upgrading - achieving more efficient transformations of inputs into outputs by reorganising productive activities, followed by product upgrading (41%), where interventions supported new or more sophisticated products with increased unit value. Over a quarter (28%) of the interventions has functional upgrading outcomes, with new functions created to increase the skill content of activities. Around a third (34%) of interventions used multiple strategies for upgrading, most commonly process, product and functional upgrading, suggesting that combined strategies are most successful.

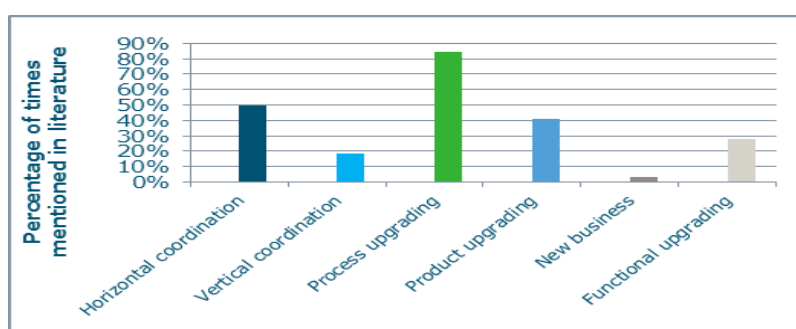


Fig. 4: Types of interventions in FTA chains

Interventions in cocoa – a cultivated commodity, often in mixed agroforestry and farm systems, and shea – largely wild harvested – provide insights into the types of interventions and impacts. Cocoa is presented as a typical “male crop”, due to the physical work involved, because it is a cash crop and as most cocoa farms are male owned. Male cocoa farmers generally benefit more from the institutional context (access rights to credit, land and markets) and due to the social context (control over revenues, decision making, bargaining power etc.) than their female counterparts. The role women play in farm, post-harvest processes and quality enhancement has only recently been highlighted (Enete and Amusa 2010; Kumase et al. 2010). The literature suggests that empowered female cocoa farmers with access to farm-inputs can influence decisions about cocoa production activities, improve bean quality and quantity, and incomes from cocoa farming (Vigneri and Holmes 2009). Major chocolate manufacturing multinationals and NGOs have increasingly acknowledged these gender gaps – particularly in access to programs such as training, certification and access to credit and inputs (Banerjee et al 2014; Barrientos 2013; Kumase et al 2010; UTZ 2009). Such programs are generally in the early stages of design and implementation, and so the impacts are either not yet apparent (Ingram, Waarts, et al. 2014; Waarts et al. 2013) or only just becoming so (International Institute of Tropical Agriculture 2006).

Numerous interventions to improve female producer’s and processor’s inclusion and incomes in shea export chains in West and Central Africa have been made in the last two decades. Mainly donor and NGO projects, the interventions were reported to improve women’s access rights to shea nuts, increase shea butter quality and volume, and enhance women’s influence in household decision making and bargaining power (Banye 2012; Greig 2006; Hatskevich, Jenicek, and Antwi Darkwah 2011; Konate 2012; Perakis 2009; Sidibé et al. 2012; Traoré 2002). The literature however often lacks independent, detailed impact analyses and generally present the outcomes for women as a homogenous group, positively influenced by inclusion and upgrading strategies. Poudyal (2009) and Elias (2010) indicate that some interventions have been captured by elites at the expense of marginalized groups, limiting empowerment to specific groups of women. Elias (2010) also cautions how interventions have led to household and societal changes relating to power, income and household tasks, which have also been seen negatively. The success of such interventions has led to men encroaching on what were previously female activities, changing gender and shifting power dynamics which result in increased social differentiation, changed household consumption patterns and a ultimately a loss of livelihoods, particularly for women (Baden 2013; Wardell and Fold 2013).

Discussion - Improving the impact of interventions

Lessons drawn from the literature reviewed about interventions to improve gender equity in FTA chains include:

1. Taking an integrated view of technical and social-cultural practices when making interventions – changing established practices may need a multi-pronged strategy and takes time, the use of role models and pilots can help demonstrate the effects of change further stimulate social change.
2. Technological changes (e.g. agroforestry or beekeeping training) benefitting certain groups of people were more successful and sustained when completed with market-orientated activities such as marketing and quality improvement campaigns, networking with traders, trade fairs, etc., and/or with economic capital e.g. credit to invest in (new) FTA chain activities and sustain failures during initial phases of process or product upgrading.
3. Collective action and self-help groups were often effective in stimulating change, but need substantial initial support, often with encouragement from local institutions and leaders as well as intervening projects and programmes.
4. If interventions enable women’s benefits to increase, this can have both positive and negative social cultural repercussions in the short term.
5. Interventions with a combination of vertical and horizontal upgrading were most successful.
6. Awareness raising about women’s position and subsequent empowerment through training, technology, increased negotiating capacity, business skills development and market information were common strategies used to trigger changes by men and women to enable self-determine their own successful upgrading initiatives.

7. Few studies predicted any gendered impacts of their interventions, generally ex-ante documentation of impacts. Some impacts were anticipated and differed from the aims of the interventions.
8. Women appear disadvantaged by general societal factors that hinder their ability to operate effectively in value chains, compared to men. Most frequently mentioned (12 times in 6% of the publications) was women's unequal access to education, resulting in lower levels of literacy.
9. Interventions introducing labour saving technologies (i.e. nut cracking machines, mills, cultivation that reduces forage time, energy efficient stoves, biogas plants) were notable in freeing up women's time. This allowed them to engage in higher value activities in the chain, upgrading and/or other economic activities.
10. Regulations countering discrimination, supporting collective action and equal labour rights can aid in setting more equal foundations for gender relations.
11. Interventions that are out-of-the-box can successfully address difficult to change governance and political contexts. For example land tenure rules were skirted when an intervention/project encouraged women to use marginal and barren lands to grow and market new agroforestry products.
12. Pilots and demonstrations such as unprecedented female leadership in FTA chain activities, can support change by demonstrating the possibility of new gender relations in chains.
13. Establishing gender sensitivity in interventions can be a critical criteria for success. This must go hand in hand with well selected beneficiaries, intervention partners, and with developing the gender mainstreaming capacities of implementing agencies.

Conclusions/outlook

Looking at the literature reviewed, it is notable that there is an absence of gender disaggregated data on male and female activities higher up in FTA value chains – the focus is on harvesting and primary processing in developing countries. Few articles mentioned gender disaggregated impacts of interventions on sustainability of the resource – the species or ecosystems provisioning the FTA products. Most studies did not include a baseline situation, making comparison of before and after the chain intervention tenuous, particularly for projects occurring over long time periods. The majority of the studies report on a short time period, often during or directly after an intervention, and few examined changes in gender relations over a longer time scale in relation to chain interventions. In the literature reviewed, interventions often had a strong female bias, most notable in the shea and apiculture product chains, where men were excluded to the advantage of women. Indicators of successful gender equitable interventions need to include both economic metrics (i.e. profit, revenue, number of women and men participating in a chain) as well as socio-cultural metrics (i.e. men and women's perceptions of changes and roles, social acceptability).

The literature reviewed suggests that participation in FTA value chains is gendered not only because of the socio-cultural, economic, governance, political, institutional and environmental contexts but also due to other factors of social differentiation such as education, age and ethnicity. Gendered constraints occur, particularly for women's participation in and benefits from FTA value chains, mainly due to social-cultural, political, economic and environmental factors. The influence of each factor varies depending on the product, geographic region and cultural setting. Gender is often used in the literature shorthand for a focus on women in FTA chain interventions, rather than on the relations between women and men. In some cases, men were cast in a negative light. However, to have positive future prospects for gender equitable and sustainable outcomes, interventions in FTA value chains have to consider the impacts on both men and women and the ways they interact.

Avenues for future research and interventions, indicated by these findings are that more attention is needed on four main areas: Firstly, a focus is needed on the long term impacts of interventions on gender relations, participation and benefits from FTA chains. These need to be monitored and evaluated, and could also be predicted prior to interventions i.e. using intervention logics developed in a participatory way with value chain actors. Expectations by policy makers, the private sector,

development practitioners and the research community of the long timescales required to effect real changes, for example in customs and tenure changes, therefore need to take long time scales into account and not expect enduring change from short lived interventions. Secondly, a better understanding of the impact of single sex bias in interventions is required– if women are supported what are the impacts on men and what are the longer term changes in societal and market dynamics. Thirdly, if gender affects product and resource sustainability, we need to know if women or men manage the wild and cultivated resources used in chains differently and do interventions affecting their roles and benefits in chains influence this. Fourthly, developing pragmatic, easy to use indicators to set pre-intervention baselines and measure economic, social and environmental and governance-political impacts due to FTA value chain interventions that also enable comparison between FTA chains in different geographical regions.

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